

IN THE CLAIMS:

This listing of claims will replace all prior versions of claims in this application.

1. (Previously Presented) A filter cartridge with a filter material, comprising: a cartridge container with a bottom wall and a peripheral wall and a lid, which shuts the cartridge container, comprised of a lid bottom and a strip-shaped lateral wall having a length measured parallel to the peripheral wall and having a linear vertical cross section along the entire length of the lateral wall, wherein the lateral wall is fitted at the inner side of the peripheral wall and the lateral wall is in contact with the peripheral wall along the entire length of the lateral wall, wherein the lid bottom merges with the lateral wall in the direction of the peripheral wall along a first end of an inward curved edge section, wherein the first end of the curved edge section and the lateral wall join in a common wall section, tapering inwards, in a forming region, wherein a lower end of the common wall section is parallel to the cartridge container peripheral wall adjacent thereto, and wherein the lateral wall has an upper wall section which is connected to and extends upward from the common wall section that is parallel to the common wall section lower end and cartridge container peripheral wall adjacent thereto, wherein glue or a weld connects at least one section of the common wall section to the peripheral wall, and wherein the curved edge section has a second end that merges into an essentially horizontal lid bottom middle section.

2. (Previously Presented) The filter cartridge as claimed in claim 1, wherein in vertical cross section the lateral wall is a linear tangent line, and wherein the lateral wall is connected with the curved edge section tangentially.

3. (Previously Presented) The filter cartridge as claimed in claim 1, wherein the common wall section forms a lower wall section of the lateral wall that includes the lower end.

4. (Previously Presented) The filter cartridge according to claim 1, wherein the curved edge section extends up to the inner end of the strip-shaped lateral wall.

5. (Previously Presented) The filter cartridge according to claim 1, wherein the curved edge section has a mean edge radius of curvature R , which satisfies $R \geq 5 \times S$, wherein S indicates the thickness of the peripheral wall of the cartridge container.

6. (Previously Presented) The filter cartridge according to claim 1, wherein the curved edge section spans an angle α from 80° to 100° .

7. (Previously Presented) The filter cartridge according to claim 1, wherein the lateral wall upper wall section extends upward from the common wall section at least up to height of the lid bottom.

8. (Previously Presented) The filter cartridge according to claim 7, wherein the upper wall section of the lateral wall and the curved edge section border on their outer side forming a ring space with a wedge-shaped cross section.

9. (Previously Presented) The filter cartridge according to claim 1, further comprising a back-up ring arranged on the lid, wherein the back-up ring has an inner wall comprising a ring opening, an outer lateral wall in contact with the lid lateral wall, and a plurality of radial reinforcing ribs connected to and extending between the back-up ring inner wall and back-up ring outer lateral wall.

10. (Previously Presented) The filter cartridge according to claim 9, wherein at least a bottom contour of the back-up ring is connected to the back-up ring inner wall and the back-up ring outer lateral wall and is built such that the bottom contour is complementary to an outer contour of the lid.

11-14. (Canceled)

15. (Previously Presented) The filter cartridge according to claim 1, wherein the material of the cartridge container is transparent to laser light and at least the material of the lateral wall of the lid is absorptive to laser light.

16. (Previously Presented) The filter cartridge as claimed in claim 2, wherein the common wall section forms a lower wall section of the lateral wall that includes the lower end.

17. (Previously Presented) The filter cartridge according to claim 16, wherein the curved edge section has a mean edge radius of curvature R , which satisfies $R \geq 5 \times S$, wherein S indicates the thickness of the peripheral wall of the cartridge container.

18. (Previously Presented) The filter cartridge according to claim 6, wherein the lateral wall upper wall section extends upward from the common wall section at least up to height of the lid bottom.

19. (Previously Presented) The filter cartridge according to claim 8, further comprising a back-up ring arranged on the lid, wherein the back-up ring has an inner wall comprising a ring opening, an outer lateral wall in contact with the lid lateral wall, and a plurality of radial reinforcing ribs connected to and extending between the back-up ring inner wall and back-up ring outer lateral wall.

20. (Previously Presented) The filter cartridge according to claim 24, wherein a welded area derived from a laser connects at least one section of the common wall section to the peripheral wall.

21. (Previously Presented) The filter cartridge according to claim 9, wherein the lid includes a connecting tube at its center that is connected to the essentially horizontal lid bottom middle section, and wherein the connecting tube is accessible through the ring opening of the back-up ring.

22. (Previously Presented) The filter cartridge according to claim 21, wherein the radial reinforcing ribs are connected with each other by a back-up ring bottom extending between the back-up ring inner wall and back-up ring outer lateral wall, and

the filter cartridge further comprising a slit-shaped recess between the back-up ring bottom and a portion of the curved edge section bordering on the common wall section.

23. (Previously Presented) A filter cartridge with a filter material, comprising:
a cartridge container with a bottom wall and a peripheral wall and a lid, which durably shuts the cartridge container, comprised of a lid bottom and a strip-shaped lateral wall having a linear vertical cross section, with a form matching according to its border, which is fitted at the inner side of the peripheral wall, whereby the lid bottom merges with the lateral wall in the direction of the peripheral wall along an inward curved edge section, whereby the curved edge section and the lateral wall join in a common wall section, tapering inwards, in a forming region, wherein a lower end of the common wall section is parallel to the cartridge container peripheral wall adjacent thereto, wherein the lateral wall has an upper wall section which extends upward from the common wall section that is parallel to the common wall section lower end and cartridge container peripheral wall adjacent thereto, a back-up ring arranged on the lid, wherein the back-up ring has an inner wall comprising a ring opening, an outer lateral wall in contact with the lid lateral wall, and a plurality of radial reinforcing ribs extending between the back-up ring inner wall and back-up ring outer lateral wall, wherein at least a bottom contour of the back-up ring is connected to the back-up ring inner wall and the back-up ring outer lateral wall and is built such that the bottom contour is complementary to an outer contour of the lid, wherein the back-up ring does not fill a wedge-shaped ring area between the bottom contour and the lid completely, and wherein the radial reinforcing ribs are connected with each other by a back-up ring bottom contour extending between the back-up ring inner wall and back-up ring outer lateral wall.

24. (Previously Presented) A filter cartridge with a filter material, comprising:
a cartridge container with a bottom wall and a peripheral wall and a lid, which durably shuts the cartridge container, comprised of a lid bottom and a strip-shaped lateral wall having a linear vertical cross section, with a form matching according to its border, which is fitted at the inner side of the peripheral wall, whereby the lid bottom

merges with the lateral wall in the direction of the peripheral wall along an inward curved edge section, whereby the curved edge section and the lateral wall join in a common wall section, tapering inwards, in a forming region, wherein a lower end of the common wall section is parallel to the cartridge container peripheral wall adjacent thereto, and wherein the lateral wall has an upper wall section which extends upward from the common wall section that is parallel to the common wall section lower end and cartridge container peripheral wall adjacent thereto, a back-up ring arranged on the lid, wherein the back-up ring has an inner wall comprising a ring opening, an outer lateral wall in contact with the lid lateral wall, and a plurality of radial reinforcing ribs connected to and extending between the back-up ring inner wall and back-up ring outer lateral wall, and a slit-shaped recess between the back-up ring and a position of the curved edge section bordering on the common wall section.

25. (Previously Presented) A filter cartridge with a filter material, comprising: a cartridge container with a bottom wall and a peripheral wall and a lid, which shuts the cartridge container, comprised of a lid bottom and a strip-shaped lateral wall having a length measured parallel to the peripheral wall and having a linear vertical cross section along the entire length of the lateral wall, wherein the lateral wall is fitted at the inner side of the peripheral wall and the lateral wall is in contact with the peripheral wall along the entire length of the lateral wall, wherein the lid bottom merges with the lateral wall in the direction of the peripheral wall along a first end of an inward curved edge section, wherein the first end of the curved edge section and the lateral wall join in a common wall section, tapering inwards, in a forming region, wherein a lower end of the common wall section is parallel to the cartridge container peripheral wall adjacent thereto, wherein the lateral wall has an upper wall section which is connected to and extends upward from the common wall section that is parallel to the common wall section lower end and cartridge container peripheral wall adjacent thereto, wherein in the vertical cross-section, the lateral wall is a linear tangent line, and wherein the lateral wall is connected with the first end of the curved edge section tangentially, wherein glue or a weld connects at least one section of the common wall section to the

peripheral wall, and wherein the curved edge section has a second end that merges into an essentially horizontal lid bottom middle section.

26. (Previously Presented) A filter cartridge with a filter material, comprising: a cartridge container with a bottom wall and a peripheral wall and a lid, which shuts the cartridge container, comprised of a lid bottom and a strip-shaped lateral wall having a length measured parallel to the peripheral wall and having a linear vertical cross section along the entire length of the lateral wall, wherein the lateral wall is fitted at the inner side of the peripheral wall and the lateral wall is in contact with the peripheral wall along the entire length of the lateral wall, wherein the lid bottom merges with the lateral wall in the direction of the peripheral wall along an inward curved edge section, wherein the curved edge section and the lateral wall join in a common wall section, tapering inwards, in a forming region, wherein a lower end of the common wall section is parallel to the cartridge container peripheral wall adjacent thereto, and wherein the lateral wall has an upper wall section which is connected to and extends upward from the common wall section that is parallel to the common wall section lower end and cartridge container peripheral wall adjacent thereto, and wherein the curved edge section consists of a single curved portion having a radius of curvature R , wherein glue or a weld connects at least one section of the common wall section to the peripheral wall, and wherein the curved edge section has an essentially vertical section at one end in an area of the common wall section and immediately merges into an essentially horizontal lid bottom middle section at a second end.

27. (Previously Presented) The filter cartridge according to claim 1, wherein the curved edge section has an essentially vertical section at one end in an area of the common wall section.

28. (Previously Presented) The filter cartridge according to claim 25, wherein the curved edge section has an essentially vertical section at one end in an area of the common wall section.

29. (Canceled)